



# **PAGER**

Created: 2 hours, 2 minutes after earthquake

### M 5.1, 50km NW of Paraparaumu, New Zealand Origin Time: 2020-01-25 10:45:11 UTC (Sat 22:45:11 local) Location: 40.6189° S 174.5631° E Depth: 86.2 km

10,000

1,000

Version 3

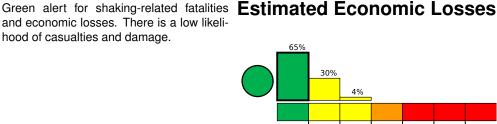
10.000

100,000

1,000

**Estimated Fatalities** 69%

and economic losses. There is a low likelihood of casualties and damage.



USD (Millions,

**Estimated Population Exposed to Earthquake Shaking** 

| ESTIMATED POPULATION<br>EXPOSURE (k=x1000) |                          | _*       | 681k*  | 16k   | 0        | 0        | 0           | 0          | 0        | 0        |
|--|--------------------------|----------|--------|-------|----------|----------|-------------|------------|----------|----------|
| ESTIMATED MODIFIED MERCALLI INTENSITY      |                          | I        | 11-111 | IV    | V        | VI       | VII         | VIII       | IX       | X+       |
| PERCEIVE                                   | SHAKING                  | Not felt | Weak   | Light | Moderate | Strong   | Very Strong | Severe     | Violent  | Extreme  |
| POTENTIAL<br>DAMAGE                        | Resistant<br>Structures  | None     | None   | None  | V. Light | Light    | Moderate    | Mod./Heavy | Heavy    | V. Heavy |
|  | Vulnerable<br>Structures | None     | None   | None  | Light    | Moderate | Mod./Heavy  | Heavy      | V. Heavy | V. Heavy |

<sup>\*</sup>Estimated exposure only includes population within the map area.

### Population Exposure

111

40.2°S

40.9°S

Ш

173.9°W

## <sub>Patea</sub>174.8°W Ш Wanganui

Otaki

araparaumu

Foxton

Ш

population per 1 sq. km from Landscan

### **Structures**

Overall, the population in this region resides in structures that are highly resistant to earthquake shaking, though some vulnerable structures exist. The predominant vulnerable building types are reinforced masonry and unreinforced brick with timber floor construction.

#### **Historical Earthquakes**

| Date       | Dist. | Mag. | Max       | Shaking |
|------------|-------|------|-----------|---------|
| (UTC)      | (km)  |      | MMI(#)    | Deaths  |
| 2004-07-18 | 331   | 5.4  | V(1k)     | 1       |
| 1987-03-02 | 347   | 6.5  | VIII(16k) | 0       |
| 1968-05-23 | 239   | 7.2  | IX(1k)    | 3       |

Recent earthquakes in this area have caused secondary hazards such as landslides that might have contributed to losses.

### **Selected City Exposure**

| from GeoNames.org |                  |            |  |  |
|-------------------|------------------|------------|--|--|
| MMI               | City             | Population |  |  |
| III               | Otaki            | 6k         |  |  |
| Ш                 | Levin            | 20k        |  |  |
| Ш                 | Foxton           | 5k         |  |  |
| Ш                 | Paraparaumu      | 25k        |  |  |
| Ш                 | Upper Hutt       | 38k        |  |  |
| Ш                 | Wanganui         | 40k        |  |  |
| Ш                 | Porirua          | 51k        |  |  |
| Ш                 | Palmerston North | 76k        |  |  |
| Ш                 | Masterton        | 21k        |  |  |
| Ш                 | Lower Hutt       | 101k       |  |  |
| Ш                 | Wellington       | 382k       |  |  |
|                   |                  |            |  |  |

bold cities appear on map.

(k = x1000)

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.